38 33 72. The method of claim 40 wherein the target material is a trimmable component and the step of presetting a pre-selected pulse shape is performed so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.

39 34 73. The method of claim 55 wherein the target material is a trimmable component and the step of presetting a pre-selected repetition rate is performed so as to permit the trimmable component to be measured accurately during trimming of the trimmable component.

40 35 74. The method of claim 73 wherein the step of selecting a pulse shape is performed dynamically during trimming of the trimmable component so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.

41 36 75. The method of claim 55 wherein the target material is a trimmable component and the step of selecting a pulse shape is performed dynamically during trimming of the trimmable component so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.--

REMARKS AND INTERVIEW SUMMARY

Applicant has added a reference to the prior application as requested by the Examiner.

Claims 41, 45-49, 56, and 60-64 and 56 have been amended to overcome the Examiner's objection for informality and indefiniteness.

Applicant notes with appreciation the interview on March 16, 2001 between the Examiner, the inventor Donald Smart, the assignee's representative Donald Svetkoff, and the undersigned. During the interview we discussed the amendments to independent claims 40 and 55 set forth below and the distinctions between amended claims 40 and 55 and the Emmons patent.

Mr. Smart and the undersigned explained that in the Emmons patent, selection of the repetition rate would affect pulse shape. In particular, Emmons controls pulse shape by controlling the period of time during which the modulator or modulators are open, and thus the

only way to control repetition rate would be to control the period of time during which the modulator or modulators are closed. But, any change in the period of time during which the modulator or modulators are closed will also affect pulse shape, as is explained in applicant's specification. Claim 40 has been amended to specify that according to applicant's invention, selection of the repetition rate does not affect the pulse shape.

Similarly, Mr. Smart and the undersigned explained that in the Emmons patent, selection of pulse shape would affect repetition rate. In particular, Emmons controls pulse shape by controlling the period of time during which the modulator or modulators are open. But, any change in the period of time during which the modulator or modulators are open will also affect repetition rate (unless this change were to be compensated for by an exactly inverse modification of the time during which the modulator or modulators are closed, which is certainly not suggested by Emmons). Claim 55 has been amended to specify that according to applicant's invention, selection of the pulse shape does not affect repetition rate.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be allowed. Enclosed is a $108 check for excess claim fees. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: April 5, 2001

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Version with markings to show changes made

In the specification:

Paragraph beginning at page 1, line 5 has been amended as follows:

This is a divisional of pending Application No. 09/096,600, filed 12 June 1998. The invention relates to controlling pulses in laser systems and more particularly relates to controlling the width and energy of pulses at differing repetition rates during micromachining procedures such as resistor trimming or capacitor trimming.

In the claims:

Claims 40, 41, 45-49, 52, 55, 56, 60-64, and 67 have been amended as follows:.

40. (Amended) A method of operating a pulsed laser system comprising:

providing a pulsed laser system comprising a laser source;

presetting a pre-selected pulse shape to be produced by the pulsed laser system, based on known properties of a target material to be processed on a workpiece;

selecting a repetition rate independently of the pre-selected pulse shape; and

pulsing the pulsed laser system at [a pre-selected] **the** repetition rate selected independently of the pre-selected pulse shape, to cause the laser source to process the target material on the workpiece, while the pre-selected pulse shape remains as preset regardless of the repetition rate**, without selection of the repetition rate affecting the pulse shape**.

41. (Amended) The method of claim 40 wherein the pre-selected pulse [width] **shape** is a pre-selected pulse width.

45. (Amended) The method of claim 40 wherein the [electronic device] **target material** is a thick-film electrical element.

46. (Amended) The method of claim 40 wherein the [electronic device] **target material** is a thin-film electrical element.

47. (Amended) The method of claim 40 wherein the [electronic device] **target material** is a resistor.

48. (Amended) The method of claim 40 wherein the [electronic device] **target material** is a capacitor.

49. (Amended) The method of claim 40 wherein the [electronic device] **target material** is a conductive link.

52. (Amended) The method of claim 40 wherein the laser source comprises a laser pump and a laser rod, and the pulsed laser system comprises a switch that, when closed **in an on state**, causes energy from the laser pump to be stored in the laser and that, when opened **in an off state**, allows energy to be emitted from the laser rod during an emission period.

55. (Amended) A method of operating a pulsed laser system comprising:

providing a pulsed laser system comprising a laser source;

presetting a pre-selected repetition rate at which the pulsed laser system is to be operated, based on known properties of a target material to be processed on a workpiece;

selecting a pulse shape independently of the pre-selected repetition rate; and

pulsing the pulsed laser system with [a pre-selected] **the** pulse shape selected independently of the pre-selected repetition rate, to cause the laser source to process the target material on the workpiece, while the pre-selected repetition rate remains as preset regardless of the pulse shape**, without selection of the pulse shape affecting the repetition rate**.

56. (Amended) The method of claim 55 wherein the pre-selected pulse [width] **shape** is a pre-selected pulse width.

60. (Amended) The method of claim 55 wherein the [electronic device] **target material** is a thick-film electrical element.

61. (Amended) The method of claim 55 wherein the [electronic device] **target material** is a thin-film electrical element.

62. (Amended) The method of claim 55 wherein the [electronic device] **target material** is a resistor.

63. (Amended) The method of claim 55 wherein the [electronic device] **target material** is a capacitor.

64. (Amended) The method of claim 55 wherein the [electronic device] **target material** is a conductive link.

67. (Amended) The method of claim 55 wherein the laser source comprises a laser pump and a laser rod, and the pulsed laser system comprises a switch that, when closed **in an on state**, causes energy from the laser pump to be stored in the laser and that, when opened **in an off state**, allows energy to be emitted from the laser rod during an emission period.

New claims 70-75 have been added:

70. The method of claim 40 wherein the target material is a trimmable component and the step of selecting a repetition rate is performed dynamically during trimming of the trimmable component so as to permit the trimmable component to be measured accurately during trimming of the trimmable component.

71. The method of claim 70 wherein the step of presetting a pre-selected pulse shape is performed so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.

72. The method of claim 40 wherein the target material is a trimmable component and the step of presetting a pre-selected pulse shape is performed so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.

73. The method of claim 55 wherein the target material is a trimmable component and the step of presetting a pre-selected repetition rate is performed so as to permit the trimmable component to be measured accurately during trimming of the trimmable component.

74. The method of claim 73 wherein the step of selecting a pulse shape is performed dynamically during trimming of the trimmable component so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.

75. The method of claim 55 wherein the target material is a trimmable component and the step of selecting a pulse shape is performed dynamically during trimming of the trimmable component so as to allow the trimmable component to be cut all the way through the trimmable component without undue heating.